



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,796	08/06/2003	James B. O'Dwyer	1873A1	2706

7590 02/07/2006  
PPG INDUSTRIES, INC  
Intellectual Property Department  
One PPG Place  
Pittsburgh, PA 15272

EXAMINER

CHEUNG, WILLIAM K

ART UNIT PAPER NUMBER

1713

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/635,796	Applicant(s) O'DWYER ET AL.	
	Examiner William K. Cheung	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,5-23,26-31,40,43-52 and 55-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-23,26-31,40,43-52 and 55-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The request filed on October 26, 2005 for a Request for Continued Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 10/635,796 is acceptable and a RCE has been established. An action on the RCE follows.
2. In view of amendment filed December 1, 2005, claims 2-4, 24-25, 32-39, 41-42, 53-54, 58-69 have been cancelled. Claims 1, 5-23, 26-31, 40, 43-52, 55-57 are pending.
3. In view of amendment filed December 1, 2005, the rejection of Claims 1-69 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohrbom et al. (WO 0031195) is withdrawn.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 1713

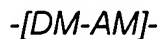
applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 40, 43-52, 55-57 are rejected under 35 U.S.C. 102(e) as anticipated by Martin et al. (US 6,787,597).

*The invention of claims 40, 43-52, 55-57 relates to a **copolymer** comprising at least 30 mol % of residues having the following alternating structural units:*



*wherein DM represents a residue from a donor monomer, AM represents a residue from an acceptor monomer, **at least 15 mol %** of the copolymer comprising a donor monomer selected from **isobutylene, isobutylene, dipentene and/or isoprenol, at least 15 mol %** of the copolymer comprising an acrylic monomer as an acceptor monomer; the **copolymer containing pendant groups** of the structure:*

Art Unit: 1713



*where R' is alkyl containing one to eight carbon atoms and R'' is selected from H, CH<sub>2</sub>OR', linear, cyclic or branched C<sub>1</sub> to C<sub>20</sub> alkyl, alkenyl, C<sub>6</sub> to C<sub>20</sub> aryl, alkaryl and aralkyl.*

Martin et al. (col. 4, line 26-57; col. 17, line 36-48) disclose a copolymer comprising at least 30 mol % of residue having alternating structural units, at least 15 mol% of acrylic monomer and at least 15 mol % of donor monomer which include isobutylene, diisobutylene, dipentene, and isoproprenol as claimed. Martin et al. (col. 6, line 35-60) also disclose that carbamate functional groups can be included in the acrylic polymer by copolymerizing the acrylic monomers with a carbamate functional vinyl monomer, and hence copolymer containing pendant carbamate groups are obtained. Regarding the claimed molecular weight and polydispersity, Martin et al. (col. 19, line 54 to col. 20, line 11) disclose the molecular weight ranges and polydispersity as claimed. Martin et al. (col. 36, claim 15) are also claiming an copolymer comprising at least 50 mol % of alternating structures. Martin et al. (col. 37-40, claims 19-36) contains all the limitations of claims 46-52, 55-57. Martin contains all the limitations of claims 40, 43-52, 55-57. Therefore, claims 40, 43-52, 55-57 are anticipated.

6. Claims 1, 5-23, 26-31 are rejected under 35 U.S.C. 102(e) as anticipated by Martin et al. (US 6,787,597).

*The invention of claims 1, 5-23, 26-31 relates to a **reaction product of reactants**, wherein the reactants comprise:*

*a) **at least one copolymer** comprising at least **30 mol % of residues having the following alternating structural units:***



*wherein DM represents a residue from a donor monomer, AM represents a residue from an acceptor monomer, **at least 15 mol %** of the copolymer comprising a donor monomer selected from **isobutylene, diisobutylene, dipentene, and/or isoprenol**, **at least 15 mol %** of the copolymer comprising an **acrylic monomer** as an acceptor monomer; the copolymer containing **pendant carbamate groups or groups that can be converted to carbamate groups**;*

*b) at least one **aldehyde**; and*

*c) at least one **monohydric alcohol**; wherein when the **copolymer (a) contains groups that can be converted to carbamate groups**, the reactants further comprise:*

*d) at least one **material that will convert said groups into carbamate groups**.*

Set forth from paragraph 5 of instant office action, Martin et al. disclose a copolymer that is substantially identical to the component a) as claimed. Furthermore, Martin et al. (col. 27, line 21; col. 29, table; col. 31, table) disclose a copolymer comprising monohydric alcohol. Martin et al. (col. 9, line 5-20) also disclose a composition comprising aldehydes. Martin et al. contain all the limitation of claims 1, 5-23, 26-31. Claims 1, 5-23, 26-31 are anticipated.

Martin et al. (US 6,803,413) is another related art that can be applied for a 102(e) rejection.

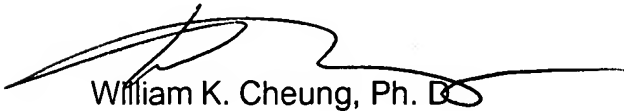
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Primary Examiner

February 3, 2006

**WILLIAM K. CHEUNG**  
**PRIMARY EXAMINER**